



Name Index of Carbon Coatings

Classification of carbon films

	Carbon films													
Designation	1 Plasma-polymer films	2 Amorphous carbon films (diamond-like-carbon films / DLC)							3 Crystalline carbon films					
									Diamond films				Graphite films	
Thin film / thick film	Thin film	Thin film							Thin film		Thick film (free standing)		Thin film	
Doping, additional elements		hydrogen-free			hydrogenated				undoped	doped	undoped	doped	undoped	
				modified			modified							
				with metal			with metal	with non-metal						
Crystal size on the growth side	./.	(amorphous)							1 to 500 nm, nano-crystalline	0.5 to 10 µm, mikro-crystalline	0.1 to 5 µm	(5 µm to) 80 to 500 µm	80 to 500 µm	
Predominating C-C-bond type	sp ² or sp ³ , linear bond	sp ²	sp ³	sp ²	sp ² or sp ³	sp ³	sp ²	sp ²	sp ³	sp ³	sp ³	sp ³	sp ³	sp ²
Film No.	1	2.1	2.2	2.3	2.4	2.5	2.6	2.7	3.1	3.2	3.3	3.4	3.5	3.6
Designation	Plasma-polymer film	Hydrogen-free amorphous carbon film	Tetrahedral hydrogen-free amorphous carbon film	Metal-containing hydrogen-free amorphous carbon film	Hydrogenated amorphous carbon film	Tetrahedral hydrogenated amorphous carbon film	Metal-containing hydrogenated amorphous carbon film	Modified hydrogenated amorphous carbon film	nano-crystalline CVD diamond film	micro-crystalline CVD diamond film	doped CVD diamond film	CVD diamond	doped CVD diamond	graphite film
Recommended abbreviation	./.	a-C	ta-C	a-C:Me	a-C:H	ta-C:H	a-C:H:Me (Me = W, Ti, ...)	a-C:H:X (X = Si, O, N, F, B, ...)	./.	./.	./.	./.	./.	./.

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